KY 32 Reconstruction – From KY 504 at Elliottville to KY 7 at Newfoundland Rowan and Elliott counties, Kentucky KYTC Item 9-192.00

Purpose and Need & Goals

The KY 32 project would result in an improved section of a major east-west highway corridor through Rowan and Elliott counties in a rural section of northeastern Kentucky. The purpose and need for the KY 32 project are summarized as follows:

Purpose. To provide a roadway having improved horizontal and vertical geometry compared with existing KY 32.

Need. Existing KY 32 is a two-lane facility that was constructed in the early 1930s and has substandard geometry throughout most of its 13.7-mile-long corridor. The road is a primary east-west roadway in Elliott and Rowan counties, and provides connectivity among residential areas, the county seats, health services, educational institutions, and economic activity centers.

The project area's topography is characterized by rolling terrain, with steep hills and valleys. KY 32 is constructed along a ridgetop and has numerous hills and curves. The existing conditions along the roadway corridor include:

- Substandard horizontal and vertical alignments (i.e. steep slopes and sharp curves) throughout the corridor.
- Few opportunities to pass, and insufficient passing sight distance along 91 percent of its length.
- Narrow, asphalt pavement (9- to 11-foot-wide lane widths) throughout.
- Narrow (2- to 3-foot-wide) unpaved shoulders throughout most of the corridor.
- Predominant posted speed of 55 miles per hour (MPH) that is reduced to 25, 35, or 45 mph at multiple locations.

Based on current design standards, over 90 percent of the vertical curves (hills) do not meet 55 mph design speed, and approximately 85 percent of the horizontal curves do not meet 55 mph design speed. Likewise, there are many curves and hills that do not meet 45, 35, or even 25 mph design speeds, and many spots have a substandard curve on a substandard hill. The substandard geometry affects driving safety by reducing sight distances and restricting stopping or avoidance options when an obstruction in the roadway is encountered. Passing opportunities are limited to only one small stretch of the road, which adds to the safety problems.

Goals. In addition to the purpose and need to improve the horizontal and vertical geometry of the roadway, three goals of the project have been identified: improved safety, improved travel time and the enhancement of scenic vistas.

- Safety: During the 2009 Planning Study and at the January/February 2011 stakeholder/public meetings, safety was listed as the top concern. However, the available police crash data does not identify any specific places with statistically high crash rates along the corridor, nor does the data identify places having a notable frequency of crashes along the corridor. Therefore, improved safety, per say, is not a standalone element of the purpose and need; it is, however, a goal of the project. Some emergency responders have stated that, whenever possible, they will use an alternate route rather than KY 32 to avoid hazardous conditions (including narrow, curving roadway and poor stopping sight distance) and delays due to lack of passing opportunities. Overall, improved geometry would contribute to a solution to safety problems by reducing the potential for crashes, and would, thereby, address the top public concern.
- Travel Time: A second goal of the project, based on input from the stakeholders and the public, is to improve travel efficiency within a corridor. Travel speed is currently below the posted speed limits on KY 32 due to the road's substandard horizontal and vertical alignments, short sight and stopping distances, narrow driving lanes and limited shoulder pavement, and low design speeds in some locations. Benefits to efficient travel within the corridor would include reducing traffic on local roads, particularly KY 173, by attracting traffic to the improved KY 32.
- Scenic Vistas: A third goal of the project is to provide scenic vistas. As KY 32 is a ridgetop road, in certain locations the viewsheds from the road extend many miles to the horizon. The preservation and enhancement of viewsheds are seen as a value to the citizens and stakeholders, and a key element in local tourism.